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U. S. DEPARTMENT OF AGRICULTURE - FOREST SERVICE
CALIFORNIA FOREST AND RANGE EXPERIMENT STATION
Division of Forest Insect Research

FOREST INSECT CONDITIONS
ANTONOWITSCH RANCH INFESTATION AREA
NEVADA COUNTY, CALIFORNIA
MARCH 1954
RECONNAISSANCE SURVEY

On March 3, 1954, the author accompanied Mr. W. Maguire, Service Forester, and Mr. D. Knowlton, Ranger, of the California Division of Forestry, during an inspection of insect damage on and surrounding the Antonowitsch Ranch in Nevada County. The area examined is located approximately five miles southeast of Grass Valley in Sec. 18, T.15N., R.9E., and Secs. 12 and 13, T.15N., R.8E. All of this land is in private ownership. The area has excellent current and future commercial timber value.

The damage is caused by the western pine beetle (Dendroctonus brevicomis Lec.) and to a lesser degree by the California 5-spined pine engraver (Ips confusus (Lec.)). It is estimated that approximately 300 trees are currently infested, but the actual number may be much greater. Nearly 200 of these are located on the Antonowitsch Ranch. Ponderosa pine (Pinus ponderosa Dougl.) is the only tree species involved in the infestation. The stand is composed of fairly dense second growth ponderosa pine less than 100 years old.

Recent attacks by the pine engraver were observed in green portions of infested trees which were felled by Mr. Antonowitsch. However, the western pine beetle brood is currently in the mature larval and pupal stages. Emergence of the western pine beetle adults is not expected before May 1.

Mr. Antonowitsch, on whose property most of the infestation lies, is greatly concerned over the damage caused by the bark beetles, and has felled many of the infested trees in an unsuccessful effort to suppress the outbreak. For technical and financial reasons, however, he is incapable of coping with the problem. Timber on other private ownerships in the area is threatened by presenc of the infestation on and adjacent to the Antonowitsch Ranch.

Control recommendations

This infestation threatens to destroy a large amount of timber unless steps are taken to control it. Prevention of further damage appears to be feasible if prompt action is taken. Therefore it is recommended that plans to control the outbreak be developed immediately.

It is suggested that a zone of infestation be established which would comprise the east one-half of T.15N., R.8E., and the west one-half of T.15N., R.9E. As stated above, practically all of the infested trees which require control are located in the center of this area.

The method of control may be either fell-peel-burn or fell-spray. These methods are equally effective. If the owners wish to sell the logs for lumber, it may be advisable to burn the infested bark at a distance from the logs. However, if the infested logs are sprayed with insecticide, they may still be used for lumber.

Ethylene dibromide is recommended for use as the insecticide. It should be applie in a spray made up of one pint of 85% ethylene dibromide added to five gallons of diesel oil. Large garden sprinkler cans are suitable for applying the spray. The mixed spray will cost approximately 30 cents per gallon, and it will require approximately six gallons of mixed spray per tree.

Berkeley, California
March 12, 1954

M. M. Furniss
Forester

ANTONOWITSCH RANCH INFESTATION
NEVADA Co. CALIF.

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